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and Enameled Glass in Context

# The Kubadabad Plate: Islamic Gilded and Enameled Glass in Context

Ömür Bakırer and Scott Redford

THIS ARTICLE examines a unique piece of enameled glass: the so-called Kubadabad plate. It is named after its find-place: the Anatolian Seljuk palace complex at Kubadabad, on the shores of Lake Beyşehir in southwestern Turkey (Fig. 1). This enameled and gilded plate, which bears the name of the Anatolian Seljuk sultan Ghiyath al-Din Kaykhusraw II (r. 1237–1246), the son of Sultan ‘Ala’ al-Din Kayqubadh I (r. 1220–1237), was discovered during excavations conducted in 1965 and 1966. These excavations were directed by Katharina Otto-Dorn of Ankara University and Mehmet Önder of the Turkish General Directorate of Monuments and Museums. The first, partial reading of the inscription was made by Janine Sourdel-Thomine and Mehmet Önder.

Since its brief introduction in the 1966 and 1967 excavation reports, the plate has not been studied by itself until now, but it is mentioned in several publications, both in Turkey and abroad: first, in connection with the inscription that encircles the rim in a large band and gives the name of the sultan; second, for being a dated example that can be acknowledged as the earliest dated enameled glass from an archaeological context; and third, for its find-place, because it came from a medieval Anatolian palace and therefore the question of its origin arises.

Following these points of interest, the authors of this article have two aims. Most of the article consists of a discussion by Bakırer based on the plate’s technical and art-historical peculiarities within the social, political, and artistic framework of Seljuk Anatolia. In the second section, Redford contributes a more complete reading of the inscription, as well as an analysis of its

content, style, execution, and place within the corpus of Ayyubid Syrian enameled glass vessels with inscriptions.

Since its discovery, the plate has been on display at the Karatay Medrese Museum in Konya, Turkey (inv. no. 2162, date 1966). Several years ago, it could be examined and photographed only from outside its display case, but in 2013 one of the authors had an opportunity to examine it more closely (Fig. 2).<sup>1</sup> Another opportunity was during a visit to the museum in March 2016, which made it possible to see the scroll design on the exterior because, in its new position, the plate is displayed on a tall stand (Fig. 3). However, its present poor state of preservation does not provide an accurate picture of its original characteristics, such as the composition of the centrally arranged ornament, the colors of the enamels, the texture and other technical peculiarities, and the details of the inscription (Figs. 4 and 5). Because the authors could not examine the original state of the plate when it was discovered, the descriptions regarding its general appearance and colors given here are based on the preliminary descriptions by the excavators.

## *Discovery and Excavations at Kubadabad*

Following the discovery of the palatial complex of Kubadabad, controlled excavations took

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1. The authors are indebted to Naci Bakırıcı, director of the Karatay Medrese Museum, Konya, and Mehmet Ali Çelebi, an assistant there, for their kind permission to photograph the plate in May 2013.



FIG. 1. Map showing Kubadabad, Konya, and Alanya in Turkey, and Damascus and Raqqa in Syria.

place in three phases. The first phase, locating of the Kubadabad palace, occurred in the late 1940s and early 1950s, and was credited to

Zeki Oral, who was then director of the Konya museum. The chronicle of Ibn Bibi, the well-known historian of Seljuk Anatolia, contained descriptions of its physical setting and buildings, as well as a report on the deeds of Sultan ‘Ala’ al-Din Kayqubadh I. These descriptions attracted the attention of Oral. He began to search for the palace buildings, which had been forgotten since the time of Ibn Bibi.<sup>2</sup> Oral discovered the ruins of the two palaces constructed for the sultan, one in Kubadabad and the other in Keykubadiye, near Kayseri. With the help of villagers living in nearby settlements, he worked

2. The history of Ibn Bibi covers the dates between 1192 and 1280, indicating that he was alive in 1280, yet the exact date of his death is unknown. See H. W. Duda, “Ibn Bibi,” in *Encyclopaedia of Islam*, ed. P. Bearman and others, Leiden: Brill, 2007, p. 1272. The Turkish translation of Ibn Bibi’s text is *Ibn-Bibi, El Evamirü’l-Ala’iyye Fi’l-Umuri’l-Ala’iyye: Selçukname*, v. 1, trans. Mürsel Öztürk, Ankara: T. C. Kültür Bakanlığı, 1996.



FIG. 2. The Kubadabad plate, seen from above.





FIG. 3. *View of the plate showing its current installation in the Karatay Medrese Museum, Konya.*



FIG. 4. *Detailed view of the plate, showing its composition and condition.*



FIG. 5. *Detailed view of the plate, showing its composition and condition.*

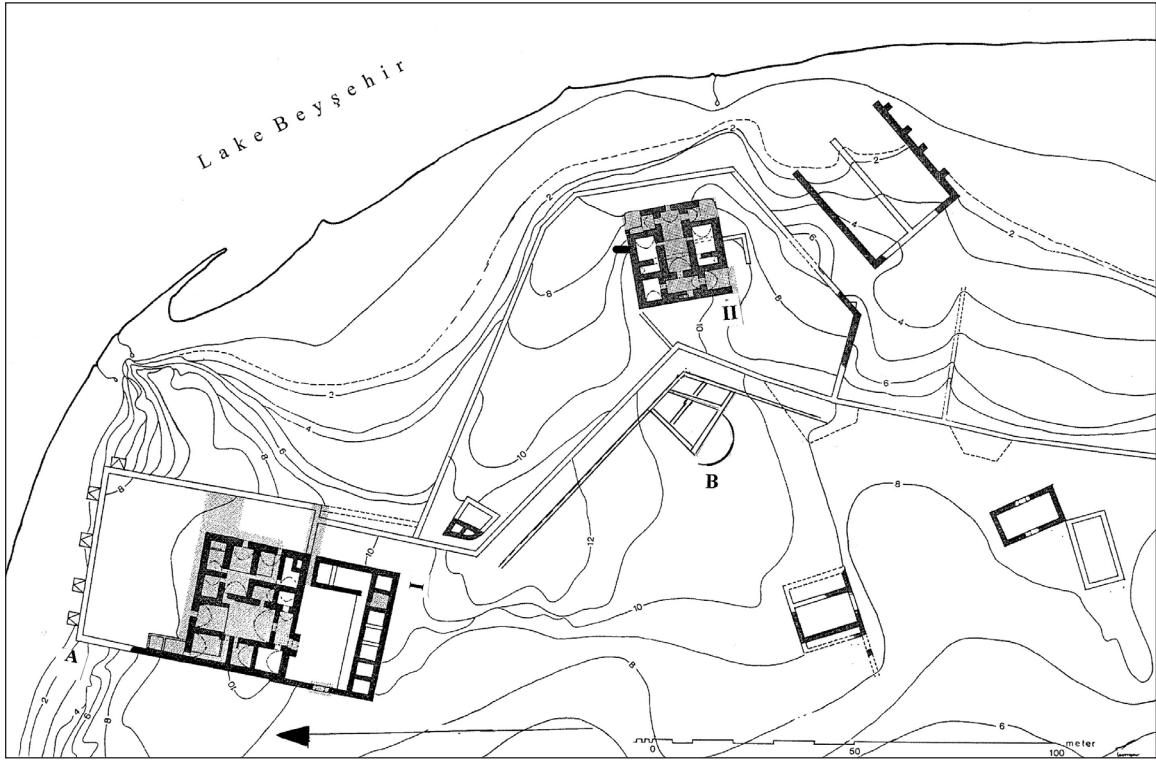


FIG. 6. Site plan of Kubadabad palace, after Otto-Dorn, "Bericht über die Grabung in Kobadabad 1966" [note 4], fig. 3. Shaded areas show the 1965 and 1966 excavation seasons: I. larger palace, II. smaller palace. A. remains of cistern where plate was found, B. 1983–1984 finds, hypothetical glass workshop. Additions by Ö.B. after Arık, Kubad Abad [note 5], pp. 48–70 and figs. 24 and 25; and Uysal [note 6].

at Kubadabad for two months, made preliminary soundings, and brought his discoveries to the attention of the public and scholars in a few summary publications.<sup>3</sup> In one of these villages, he also discovered an inscription belonging to a mosque, dated to A.D. 1235. This dated find prompted him to attribute the Kubadabad palace to the same date or to a date approximately the same.

However, Oral did not have a chance to continue his soundings or to start a more in-depth excavation to examine the site thoroughly, and research at Kubadabad was thus delayed. It was only in the 1960s that a team of scholars from Ankara University, directed by Katharina Otto-Dorn in collaboration with Mehmet Önder, then director of the Konya museum, began to

excavate the site. This constitutes the second phase in the history of excavations at Kubadabad. During the summer campaigns of 1965 and 1966, a preliminary topographical plan of the palace complex and plans and sections of the larger and smaller palaces were prepared (Fig. 6).<sup>4</sup>

3. M. Zeki Oral, "Kubadabad Bulundu," *Anıt*, v. 10, 1949, p. 23; *idem*, "Kubad-Âbâd Nasıl Bulundu," *Ankara Üniversitesi İlahiyat Fakültesi Dergisi*, v. 2, nos. 2/3, 1954, p. 179.

4. Katharina Otto-Dorn and Mehmet Önder, "Bericht über die Grabung in Kobadabad 1965," *Archäologischer Anzeiger*, v. 81, no. 2, 1966, pp. 170–183; Katharina Otto-Dorn, "Bericht über die Grabung in Kobadabad 1966," *Archäologischer Anzeiger*, v. 84, no. 4, 1969–1970, pp. 438–506, figs. 1–3, plans; *idem*, "Kubad-Abad Kazıları 1965 Yılı Ön Raporu," *Türk Arkeoloji Dergisi*, v. 14, nos. 1/2, 1967, pp. 237–243.

Otto-Dorn did not continue the excavations after 1967. Önder worked for another year, and then he too left the site, which was forgotten again until the 1980s. At that time, a new team from Ankara University, led by two of Otto-Dorn's former students, commenced the third phase of the excavations at Kubadabad. The campaigns between 1981 and 2014 were directed by Rüçhan Arık in collaboration with M. Oluş Arık, assisted by their colleagues and students from Ankara and Çanakkale Onsekiz Mart Universities.<sup>5</sup>

During this third period of the excavations, new soundings were made and new excavation trenches were opened around the two palaces and elsewhere. As was the case in the 1965 and 1966 seasons, these soundings yielded unglazed and glazed pottery fragments, wall tiles, luster-painted tiles, and small fragments of both window and utilitarian glass.

### *History of the Palace Complex*

The excavations at Kubadabad uncovered two palace buildings and a few service buildings. As documented in the preliminary site plan, the ruins of the larger and smaller palaces are in the northern and southern parts of the site respectively, and the service buildings are scattered around the site, forming a complex.<sup>6</sup> All of these buildings are enclosed within a wall, except for the shipyard on the shore of Lake Beyşehir.

The larger palace, located on an artificial terrace, measures about 50 by 55 meters. It has rooms and *eyvans* (vaulted halls) situated around two open courtyards of different sizes.<sup>7</sup> The smaller palace has a square plan and a centrally arranged open courtyard, surrounded by *eyvans* and rooms.

During the 1983 and 1984 seasons, perhaps the most important discovery was a small semi-circular structure at the corner of the water distribution system, closest to the southwestern corner of the smaller palace.<sup>8</sup> The excavators examined this structure to determine whether it was the remains of a furnace or kiln. Although finds such as a pair of scissors and pincers used

in glassworking, as well as production waste and other residual material, were recovered, there was not enough evidence to assume that this was a glass furnace. Therefore, the possibility of a glass workshop on the palace grounds remains hypothetical. However, we can posit that perhaps there was a temporary glass workshop, which may have been used to produce bull's-eye window glass for the palace buildings.

The palace complex does not have a building inscription, but dendrochronological investigations made by Peter Kuniholm in 2000 on 13 juniper pilings, taken from the foundations of the wall that surrounds the north end of the terrace on which the larger palace stands, determined that all of them were cut in 1231, during the lifetime of Sultan 'Ala' al-Din Kayqubadh I.<sup>9</sup>

Another source for dating the settlement is the inscription discovered by Oral, inserted on the mosque located in the nearby village of Pınarbaşı. This inscription mentions a *masjid* (small mosque) constructed by Badr al-Din Sutash, the governor of Kubadabad, and gives the date H. 633/A.D. 1235–1236 for its construction.<sup>10</sup> This

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5. Rüçhan Arık's reports from 1981 to 2013, published annually in *Kazı Sonuçları Toplantısı* by the Turkish Ministry of Culture and Tourism, describe the work of each season. Later, she published them as a book. See *idem*, *Kubad Abad: Selçuklu Saray ve Çinileri*, İstanbul: Türkiye İş Bankası, 2000.

6. Otto-Dorn and Önder, "Bericht . . . 1966" [note 4], pp. 441–506, fig. 1, site plan. For detailed descriptions and site plans of the later excavated areas, see Arık, *Kubad Abad* [note 5], pp. 48–70 and figs. 24 and 25; and Zekiye Uysal, *Kubad Abad Sarayında Selçuklu Cam Sanatı*, Ankara: Türk Tarih Kurumu, 2013, pp. 52–62, figs. 20–24.

7. An *eyvan*, or *iwan*, is a square or rectangular space on one or two sides of an open courtyard, usually vaulted and closed on three sides, with the fourth side opening onto the courtyard, with a high arch.

8. Rüçhan Arık, "Kubad Abad 1982 Yılı Çalışmaları," V. *Kazı Sonuçları Toplantısı*, İstanbul, 1983, pp. 301–305; *idem*, "Kubad Abad 1984 Yılı Çalışmaları," VII. *Kazı Sonuçları Toplantısı*, Ankara, 1985, pp. 651–656.

9. Peter Ian Kuniholm, "Dendrochronologically Dated Ottoman Monuments," in *A Historical Archaeology of the Ottoman Empire: Breaking New Ground*, ed. Uzi Baram and Lynda Carroll, New York: Kluwer Academic and Plenum Publishers, 2000, p. 127, no. 43: the 13 juniper pilings came from the northern end of the building, next to the sandy gravel of the shore of Lake Beyşehir.

10. Arık, *Kubad Abad* [note 5], pp. 44–45.



date may help to fix the erection of the complex after 1231 and close to 1235/1236, because the sultan died in 1237. Basing her assertions on numismatic evidence, Arik proposed that the palace was in use until the 14th century.<sup>11</sup>

How much time Sultan ‘Ala’ al-Din Kayqubadh I spent in this palace is unknown. After his sudden death, it was inherited by his son Ghiyath al-Din Kaykhusraw II (r. 1237–1246), whose use of it is revealed in the inscription of his name on the glass plate found there. After his defeat by the Mongols at the battle of Köseadağ in 1243, he seems to have spent much, if not all, of what remained of his brief reign here and elsewhere in southern Anatolia.

The small finds from the Kubadabad excavations, especially the rich collection of wall tiles, attracted the attention of scholars following the first seasons of excavations in 1965 and 1966.<sup>12</sup> They included fragments from the stucco window grilles and pieces of molded stucco from the elaborate cupboards.<sup>13</sup> Fragments of windowpanes made in the crown technique, in turquoise blue, cobalt blue, manganese purple, and green,<sup>14</sup> were found in abundance. One fragment was still held in a broken stucco frame, and the remains of crown glass indicated that both palaces, or at least the larger one, once had arched windows of colored glass. Several types of glazed and unglazed pottery for everyday use, fragments from glass bottles and beakers, and metal finds all give some idea of the lifestyle of the sultan and his emirs and attendants in Kubadabad. The outstanding glass find of the 1965 and 1966 seasons was the glass plate that is the subject of this article.

According to the annual excavation reports, it appears that small glass fragments were recovered each season at Kubadabad. During the 1981, 1982, 1984, 1990, and 1992 seasons, and also in the 2000s, fragments of window glass in various colors and of utilitarian glass in natural blue-green were recovered in the trenches around the larger palace and on the southwestern side of the smaller palace.<sup>15</sup> In addition, in 1988, pieces of glass and of stucco with carved ornament were found in abundance in

the excavation trenches close to the northwestern corner of the smaller palace, under a pile of luster-painted tiles and mosaic tiles. Some of the glass fragments were identified as having come from cylindrical and conical beakers decorated in a variety of techniques, including enameling.<sup>16</sup> Another enameled rim fragment, found in 2012, is encircled by a scroll that strongly resembles the one on the back of the glass plate discussed here, and therefore the two pieces appear to be related.<sup>17</sup>

## THE GLASS PLATE FROM KUBADABAD PALACE

The reports of the 1965 and 1966 excavation seasons state that the glass plate was discovered in a cistern adjacent to the northwestern corner of the larger palace.<sup>18</sup> At that time, only a few

11. Rüçhan Arik, “Kubad Abad 2004 Kazı Çalışmaları Raporu,” 27. *Kazı Sonuçları Toplantısı*, Ankara, 2005, v. 2, p. 326.

12. A rich collection of star- and cross-shaped wall tiles was recovered in situ on the walls of the throne room and removed to the Karatay Medrese Museum in Konya, where they were rearranged for display. The tiles have been published several times since they were discovered.

13. Yusuf Acioğlu, “Kubadabad Sarayı Alçı Buluntuları,” *Sanat Tarihi Dergisi*, v. 23, no. 2, October 2014, pp. 1–11.

14. For glass coloration and terminology, see Julian Henderson, *The Science and Archaeology of Materials: An Investigation of Inorganic Materials*, London and New York: Routledge, 2000, pp. 29–38, esp. pp. 30 and 35; and Stefano Carboni, Lisa Pilosi, and Mark T. Wypyski, “A Gilded and Enamelled Glass Plate in The Metropolitan Museum of Art,” in *The Prehistory & History of Glassmaking Technology*, Ceramics and Civilization, v. 8, ed. Patrick McCray, Westerville, Ohio: American Ceramic Society, 1998, pp. 79–102.

15. The glass recovered at Kubadabad between 1981 and 2004 was reported in Zekiye Uysal, “Kubad Abad Sarayında Selçuklu Cam Sanatı (1981–2004),” Ph.D. diss., Ege Üniversitesi, Sosyal Bilimler Enstitüsü, İzmir, 2008. It was later published in *idem*, *Kubad-Abad* [note 6], p. 119.

16. Zekiye Uysal, “Kubad Abad Kazılarında (2005–2010) Bulunan Cam Kadehler,” *Turkish Studies*, v. 8, no. 3, Winter 2013, pp. 609–623.

17. Rüçhan Arik, “Kubad Abad Sarayı 2012 Yılı Çalışmaları,” 35. *Kazı Sonuçları Toplantısı*, Muğla: Kültür ve Turizm Bakanlığı, 2013, v. 1, pp. 388–403, fig. 7. This fragment was discovered in one of the trenches on the northern end of the wall surrounding the larger palace. Based on the information supplied by the excavators, the cistern where the plate was discovered was close to this area.

18. Otto-Dorn and Önder, “Bericht . . . 1966” [note 4], pp. 480–483.

scholars—members of the excavation team—were able to examine the plate. It will therefore be helpful to refer to the descriptions of Otto-Dorn, Önder, and Gönül Öney because what they observed and recorded when the fragments were discovered has been obscured by careless gluing that has turned yellow and obscures a proper reading, competing with the honeylike color of the glass itself.

According to them, several broken fragments of an enameled inscription were unearthed, and when they were reassembled, a shallow platter was completed, with only a few missing parts. The description given by Otto-Dorn is: “The outstanding find from the cistern was an inscribed plate, decorated with enamels and gold painting. It is like a shallow ‘*omphalos* plate,’ 30.5 cm in diameter. It has a lightly everted 2.4-cm-wide rim on which there is an inscription written in naskh script, in gold, but today it has darkened. There is a partly marred star and arabesque composition inside the circle at the center, painted on a yellowish white background. The only ornament on the other side is a band of abstract half-palmettes running around the rim, again painted in gold.”<sup>19</sup>

Here is another description, written by Önder:

During the 1966 excavation season, on the terrace facing Lake Beyşehir, fragments were discovered in a cistern. After cleaning and joining the pieces together, a shallow dish, 30 cm in diameter, was reconstructed. It is a magnificent work of art. The thickness varies between 0.3 and 0.9 cm. It has a dark honey color, and the bottom is flat. At the center, there is a medallion decorated with *rumî* patterns. Over time, the color of this medallion has turned yellow. Just below the rim, there is a wide band that encircles the rim. Its surface is filled with an inscription written in Seljuk *süliis* (thuluth) script.<sup>20</sup>

Öney described the plate, not in one of the preliminary reports, but in a later publication:

The glass plate found in 1966 is the first inscribed glass with enameling, from the Seljuk period. This large, shallow dish measures 30.5 cm in diameter. The rim, 2.4 cm high, is

encircled with a wide enameled inscription band composed in three rows. The enameling is applied on a white background with gold, which has blackened. The rosette at the center is composed of *rumî* patterns that have partly disappeared. On the back of the plate, there is a scroll arranged in circles, which may have been gilded originally. From the inscription on the plate, it is understood that it was made for Ghiyath al-Din Kaykhusraw II (r. 1237–1246), son of the Seljuk sultan ‘Ala’ al-Din Kayqubadh I. The enamel work and the style of the inscription resemble contemporaneous glass made in Damascus and Aleppo. Because of the reference to Ghiyath al-Din Kaykhusraw II, it is assumed that the plate was manufactured in Anatolia. However, we are not certain whether at that date enamel work was produced in Anatolia.<sup>21</sup>

These descriptions, presented by the scholars who first saw the plate, are rare documents, and they mention things that are no longer visible, such as the color of the enamels and the composition at the center of the plate. The descriptions can be summarized as follows: For the size of the plate, all of these scholars give about the same measurement: 30 or 30.5 centimeters, which corresponds to the measurement recorded on the museum’s inventory card. For the form, all of them state that it is a shallow plate with an everted rim, and Otto-Dorn gives the width of the rim as approximately 2.4 centimeters.

The inside surface of the plate is divided into three zones (see Figure 2). The first zone, about two centimeters below the rim, is the inscription band, which is described by Otto-Dorn as “a wide enameled inscription band composed

19. *Ibid.*, p. 482.

20. Mehmet Önder, “Selçuklu Devrine Ait Bir Cam Tabak,” *Türk Sanatı Tarihi Araştırma ve İncelemeleri*, v. 2, İstanbul: Milli Eğitim Basımevi, 1969, pp. 1–5.

21. Gönül Öney, “12.–13. Yüzyıl Anadolu Cam İşçiliğinde Kadeh,” in *Uluslararası Anadolu Cam Sanatı Sempozyumu*, 26–27 Nisan, 1988, İstanbul: TŞÇŞFAŞ, 1990, pp. 64–69; *idem*, “Thoughts on Glass Beaker Fragments Found during the Samosat (Samosata) Excavations in Adıyaman,” in *Aspects of Art and Iconography: Anatolia and Its Neighbours. Studies in Honor of Nimet Özgüç*, Ankara: Türk Tarih Kurumu Basımevi, 1993, pp. 461–468.





FIG. 7. *Detailed central view of the plate.*

in three rows.” Then comes an empty zone between the inscription and the central composition. This zone appears to be free of decoration, but it is not possible to determine whether there was once a decorative composition under the present darkened surface.

The central composition gives the impression that it is inscribed in a circle (D. about 6.5–7.0 cm), outlined with tiny scrolls, leaves, and shoots that project from one or more central figures that cannot be clearly identified (Fig. 7). Otto-Dorn has described this central composition as “a partly marred star and arabesque composition inside the circle at the center,” while Önder notes that “at the center there is a medallion decorated with *rumî* patterns.” Öney says that “the rosette at the center is composed of *rumî* patterns that have partly disappeared.” However, when enlarged, this central composition did not look like a star or a rosette; instead, it resembled two or three naturalistic figures from which the scrolls spring. The exact shape of these figures cannot be identified. Around them, the scrolls and leaves are arranged in roundels filling in the circular frame (see Figure 7).

Today, the original color of the inner surface cannot be determined. What we see is a badly

blackened surface, with weak stripes of blue, red, and yellow. Otto-Dorn and Önder describe different colors. Önder states that the plate had a dark honey color, without specifying whether he is referring to the color of the glass itself or to the color of the background on which the inscription is written. He also mentions that the background of the medallion at the center has turned yellow over time. Otto-Dorn does not specify any color for the glass, but mentions that the inscription was written in enamels and gold, and the arabesque and star patterns were on a yellowish white background. Öney describes a similar color scheme, noting that the enameling was applied with gold on a white background, and adding that the color of the background had blackened. According to these descriptions, it appears that, at the time the plate was discovered, the whiteness of the background under the gold-painted letters was still partly noticeable. Today, there is extensive darkening of the complete surface; only a very weak yellowish white background can be seen in patches under both the letters and the stylized, winding scroll at the center.

None of the excavators has mentioned the color of the enamels, but a close inspection of

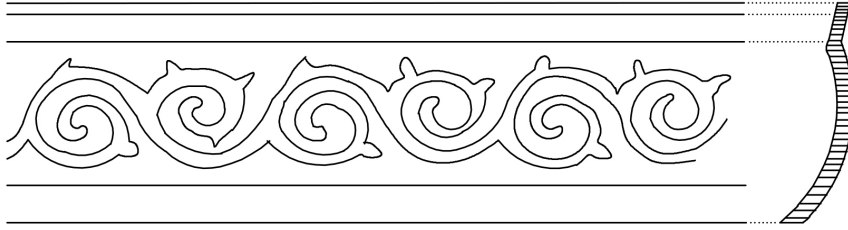


FIG. 8. Drawing by Ö.B. of scroll on exterior rim of the plate (scale and section hypothetical).

the photographs allows us to distinguish that both the letters and the scrolls with leaves that fill the central area were once outlined with fine red lines that have turned black. It is also possible to see the remains of some blue patches in the openings between the winding scrolls.

In describing early enameled glass, Carboni mentions the same colors. He notes that a full range of colors—including red, blue, yellow, white, and green—was used, and red was always employed to draw outlines, while blue covered larger areas.<sup>22</sup> If a similar polychromatic palette was applied on the Kubadabad plate, it can no longer be detected under the dark veil that covers both the figures and the background.

Otto-Dorn refers to the decoration on the exterior of the plate as “a band of abstract half-palmettes running around the rim, again painted in gold,” and Öney describes it as “a scroll arranged in circles, which possibly was gilded originally.” In another publication, Öney has made an important contribution by publishing a photograph of the exterior, in which it is possible to see the scroll encircling the rim (see Figures 3 and 8).<sup>23</sup>

As was mentioned earlier, during a visit to the museum in March 2016, one of the authors of the present article (Ö.B.) could see the exterior rim with the scroll pattern because the plate is

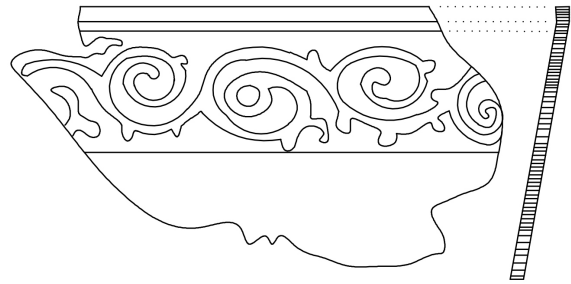


FIG. 9. Drawing of newly found fragment with scroll painting, after Arık [note 17], redrawn by Ö.B. (scale and section hypothetical).

now set on a tall stand at eye level. It has also been noted that this scroll pattern is similar to the decoration on a rim fragment from a beaker that was discovered during the 2012 excavation season (Fig. 9).<sup>24</sup>

None of the excavators discussed the technique of production or the working methods, which must have occurred in three steps. The first step was crafting the plate, perhaps from a naturally colored transparent blue-green glass. It must have been blown, then pressed and transferred to the end of the pontil, spun, and tooled to the final shape. The slightly raised center may have occurred during this transfer, but Ward believes that it was created “when the plate was reattached to the pontil in order to fire the

22. Stefano Carboni, “The Great Era of Enameled and Gilded Glass,” in *idem*, *Glass from Islamic Lands*, London: Thames and Hudson in association with The al-Sabah Collection, Dar al-Athar al-Islamiyyah, Kuwait National Museum, 2001, p. 324. For the use of red, and especially its use in outlining, Carboni finds an analogy with the sealing wax effect achieved in the 16th century by İznik potters.

23. Gönül Öney, *Anadolu Selçuklu Mimarisinde Süsleme ve El Sanatları* (Decoration and minor arts in Anatolian Seljuk architecture), Ankara: Türkiye İş Bankası Kültür Yayınları, 1978, pp. 136–137.

24. *Ibid.*, p. 7, n. 16.

enamels.”<sup>25</sup> The second step was the decoration with gold and various colors of enamels. Glass finely ground to a powder was mixed with different oxides to obtain the various colors of enamels, and lead was used as a flux. These were then suspended in a gum or an oily medium for ease of application with a brush or reed pen. In the third step, the gilding and enamels were permanently fixed to the surface of the object by firing it inside or at the opening of the furnace.

Because the gilding and the individual colors of enamel had different chemical compositions, it was necessary to apply and fire the colors one at a time.<sup>26</sup> Because reheating the vessel several times might alter its shape, Mamluk glassmakers mastered a procedure in which they used enamels rich in lead that could fuse at lower temperatures, and thus they could be fixed during a single firing.<sup>27</sup>

The firing conditions necessary to fix the enamels are mentioned by Verità, reporting on a manuscript of the second half of the 15th century: “[The manuscript] describes how the finely powdered enamels were washed and applied on to the beakers, which were then placed in the cold end of the annealing chamber and pushed slowly and gradually towards the heated zone of the *lehr*. Once the required temperature had been reached, the beakers were re-attached to

the pontil, placed at the mouth of the furnace and heated until the enamels were evenly spread and shining. The vessels were then annealed.”<sup>28</sup>

Scholars working on enameled glass, such as Carboni, Ward, and Watson, have described the chronology for the evolution of the enameling technique, based on the few surviving datable examples, in three steps<sup>29</sup>:

(1) **Decoration in gold painting alone.** The fragmentary bottle in The British Museum, London (OA1906.7-19.1), is one surviving example of this preliminary stage. The bottle, which was found in Asia Minor, may bear an inscription referring to the Turkish atabeg ‘Imad al-Din Zangi of Mosul (r. 1127–1146). It is made of transparent glass and painted with gold and incised details. In a 2007 publication, Watson added two newly discovered examples to this group: a dark blue bottle (Museum of Islamic Art, Doha, Qatar) and two groups of fragments excavated at Qasr al-Banat in Raqqa. These are made of translucent glass with enameled and gilded decoration and incised details.

(2) **Details drawn in enamel.** This marks the introduction of enamel into the making of gilded glass. An elongated beaker inscribed with the name and emblem of another atabeg of Mosul, Sanjar Shah (r. 1180–1209), illustrates this stage of production.<sup>30</sup>

25. Rachel Ward, “The Origins of the Gilded and Enamelled Glass in Syria,” *Transactions of the Oriental Ceramic Society*, v. 75, 2010–2011 (publ. 2012), pp. 39–52, esp. pp. 46–47.

26. The information on enameling was summarized from the following sources: Robert H. Brill, “Some Thoughts on the Chemistry and Technology of Islamic Glass,” in Stefano Carboni and David Whitehouse, with contributions by Robert H. Brill and William Gudenrath, *Glass of the Sultans*, New York: The Metropolitan Museum of Art in association with The Corning Museum of Glass, Benaki Museum, and Yale University Press, 2001, p. 35; David Whitehouse, *Glass: A Short History*, Washington, D.C.: Smithsonian Books, 2012, pp. 56–58; Ward [note 25], pp. 47 and 49; Oliver Watson, “Pottery and Glass: Lustre and Enamel,” in *Gilded and Enamelled Glass from the Middle East*, ed. Rachel Ward, London: British Museum Press, 1998, pp. 15–19, esp. p. 16; Carboni [note 22], p. 325, n. 19; *idem*, “Painted Glass,” in Carboni and Whitehouse (see above), p. 204; and Oliver Watson, “Another Gilt Glass Bottle,” in *Facts*

and Artefacts: *Art in the Islamic World. Festschrift for Jens Kröger on His 65th Birthday*, ed. Annette Hagedorn and Avinoam Shalem, Leiden and Boston: Brill, 2007, pp. 107–122, esp. p. 112.

27. For lead-rich soft enamels, see Carboni [note 22], p. 325, n. 19; and Ian C. Freestone and Colleen P. Stapleton, “Composition and Technology of Islamic Enamelled Glass of the Thirteenth and Fourteenth Centuries,” in *Gilded and Enamelled Glass* [note 26], pp. 122–128, esp. p. 127.

28. Marco Verità, “Analyses of Early Enamelled Venetian Glass: A Comparison with Islamic Glass,” in *ibid.*, pp. 129–134, esp. p. 130, and n. 5; the manuscript, in the University Library in Bologna (Ms 2861), is referred to as a recipe book.

29. Carboni, “Painted Glass” [note 26], p. 204; Watson, “Pottery and Glass” [note 26]; *idem*, “Another Gilt Glass Bottle” [note 26], esp. figs. 10–12; Ward [note 25], p. 42.

30. Gellatly Collection, on loan to the Freer Gallery of Art, Smithsonian Institution, Washington, D.C. (1985.1.170.8).

(3) **Gilding and enameling.** This stage is characterized by decoration with colored enamel. The Kubadabad plate, made for the Seljuk sultan Ghiyath ad-Din Kaykhusraw II, can be considered as made in a full-fledged enamel technique.

(Ö.B.)

## THE INSCRIPTION ON THE PLATE

Part of the inscription on the Kubadabad glass was read by two scholars who published their findings in the same year, 1969. Mehmet Önder discerned the name of the Seljuk sultan Ghiyath al-Din Kaykhusraw II and some titles, in whole or in part, some of which he rendered correctly and others incorrectly:

غياث الدنيا و الدين ابو الفتح كيخسرو بن كيقيباذ قسيم امير المو  
منين عز الاسلام و المسلمين قاطع الكفرة و المشركين مجدد  
العدل في العالمين<sup>31</sup>

Janine Sourdel-Thomine published parts of the same inscription in her contribution to Katharina Otto-Dorn's article on her excavations at Kubadabad that uncovered the plate.<sup>32</sup>

Sourdel-Thomine, like Önder, published the best-preserved part of the inscription, containing the names and genealogy of the Seljuk sultan. However, as a student of epigraphy in the Seljuk and post-Seljuk world, she employed a greater knowledge of medieval Islamic titulature that allowed her to correctly identify titles misread by Önder: *qam'i al-kafara wa'l mushrikin* instead of *qat'i al-kafara wa'l-mushrikin*, and *muhyi al-'adl fil-'alamayn* instead of *mujadid al-'adl fil-'alamayn*. Her epigraphic training also led her to note missing letters and unread sections. Sourdel-Thomine's partial reading of this inscription is as follows:

عز (ل) سلطان (ا) لاسلام و المسلمين قاطع الكفرة و المشركين  
محي العدل في العالمين (.....) غياث الدنيا و الدين ابو الفتح  
كيخسرو بن كيقيباذ قسيم امير المومنين

Interestingly, no one has attempted a more complete reading of this important inscription in the following period of roughly half a century. What I offer here is a reading that completes parts of the inscription unread by Önder and Sourdel-Thomine. This proposed reading omits only parts of the end of the benediction. The text and translation are based on detailed photographs kindly provided by Professor Bakirer. Despite these photographs, there were problems deciphering the benediction—problems that might have been resolved had there been an opportunity to examine the plate firsthand.

There are three problems: (1) the benediction section of Islamic inscriptions, while formulaic, can be less so than other parts, so the universe of alternatives is greater; (2) this section of the plate is faded, and perhaps burned, making decipherment difficult; and (3) in this section, as with other sections, there was a free and fluid sense of ligature between letters not canonically linked. As a result, the proposed readings of parts of the benediction are just that—proposed, not definitive. And the very last words of the benediction are left untranslated.

Other parts of the inscription were illegible because of missing pieces of the vessel, glue exuding from repaired cracks, and a missing section of what appears to be the result of a blow from a sharp object on a part of the plate bearing some of the inscription. In the reading that follows, missing parts of the inscription have been completed, based on known titulature, but the restored parts of the text are not marked with parentheses. They will be discussed more fully below, giving the reader interested in these details the opportunity to consider rationales for the proposed readings. The only anomalies shown here are those that belong to the actual text, resulting from extra letters or other errors:

31. Önder [note 20], p. 2.

32. For a description of the findspots of various fragments of this plate, see Otto-Dorn, "Bericht . . . 1966" [note 4], pp. 480–482.



عز لمولانا العالم العادل الاعظم سلطان الاسلام و المسلمين غياث  
الدنيا و الدين ابو الفتح <sup>33</sup> كيخسرو <sup>34</sup> بن كيقيباذ قسيم امير  
المومنين عز <sup>35</sup> سلطان الاسلام و المسلمين قانع الكفرة و <sup>36</sup>  
المشركين محي العدل في العالمين منصف المظلومين من  
الظالمين تاج الملوك و السلاطين عز دائما و اقبال و قدرة لسلطان  
في افق و اقاليم ... النصره الدائما <sup>37</sup> . . .

Glory to our Lord, the knowledgeable, the just,  
the greatest, Sultan of Islam and Muslims, Ghi-  
yath al-Dunya wa'l-Din, Father of Victory,  
Kaykhusraw son of Kayqubadh, Partner of the  
Commander of the Faithful. Glory (to the) Sul-  
tan of Islam and Muslims, crusher of infidels and  
polytheists, succor of justice in the worlds, he  
who spares the oppressed from the oppressors,  
crown of the kings and sultans. Eternal glory  
and success and power to the sultan of the hori-  
zons and the climes (?) . . . eternal victory . . .

### *Analysis of the Inscription*

Sourdel-Thomine expresses dismay at the style and quality of execution of the inscription: “*Se caractères cursifs mal écrits, qu’unissent abusivement de nombreuses ligatures. . . . De petits ornements annexes représentés par des lettres isolées, des tanwīn et des voyelles brèves contribuent à remplir les vides, sans aucune valeur d’ordre épigraphique. Ils gênent au contraire la lecture, rendue encore plus difficile par de nombreuses bavures au moment de l’exécution.*”<sup>38</sup>

The easiest way to understand the slapdash nature of both the execution and the content of the inscription is to realize that, despite its resemblance to foundation inscriptions in both form and content, this inscription has no beginning or end. It could begin at one or the other of two places that start with the phrase “*’izz li*,” or “glory to.” The inscription has to fill up the circular band, so it repeats Islamic titles common to medieval Syria and Anatolia to accomplish this. Here, I have chosen one over the other, based on the fact that it includes the name of the Seljuk sultan.

Like many contemporaneous inscriptions in various media, the style of writing consists of naskh, with the *hastae* elongated. This has led

some, including Önder, to call this writing *thuluth* (modern Turkish *süliis*). There is a love of “impaling” letters on these elongated verticals (see Figures 4 and 5). Other shared features include nonstandard cursive ligatures, the use of small letters with no relation to the text, and decorative *shaddas* and *fathas*. In particular, the *fathas* are elongated and stacked to fill space, to move the inscription along, and to provide horizontal balance to the elongated *alifs* and *lams*.

The *alif-lam* of *mawlana* is not splayed, as one might expect. Instead of drawing (or painting) the two letters together, the artisan made the *lam* first, and then appended the *alif* to its tail. The first words of the inscription were made large, in one register. After *al-a’zam*, it switches to two crowded registers, and then back to one register when it reaches the names of the sultan. Here, as elsewhere, there is an exaggerated loop to the *ha* of *fath*. Perhaps the novelty of writing an unusual non-Arabic name caused the artisan to forget the “tail” of the *kaf* of *Kaykhusraw*; elsewhere, the “tail” of the *kaf* is given a drooping, swooping shape.

The unfamiliarity of the artisan with the names of the sultan is revealed by a false start and a false finish: there is an extraneous *alif* before the name *Kaykhusraw* and an extraneous *waw* after it.

The difficulty of reading this inscription in terms of its sloppiness can be pointed out most obviously by examining the writing of the phrase *sultan al-Islam (wa’l-muslimin)* (see Figure 4).

33. *Sic.*

34. *Sic.*

35. *Sic.*

36. *Sic.*

37. *Sic.*

38. “Its badly written cursive letters, which improperly connect many ligatures. . . . Small auxiliary ornaments consisting of individual letters, *tanwīn*, and short vowel signs contribute to the filling of voids without [possessing] any epigraphic value. Quite the opposite, they hinder the reading [of the inscription], which is made even more difficult by the many blots made during its execution.” Janine Sourdel-Thomine, “Les Inscriptions. III. Plat en verre,” in Otto-Dorn, “Bericht . . . 1966” [note 4], p. 501.

After rising, the *alif* in *sultan* swoops down, as if to form the *nun* at the end of *sultan*, except that this letter seems to double as the *lam* in *al-Islam*. The problem with this is that there is a *sin* preceding the *alif-lam*, so that the sequence of letters that should form *al-Islam* is actually *sin-lam-alif-sin-lam-alif-mim*, with the first *lam* doubling as the *nun* of *sultan*. Here, as elsewhere, it is knowledge of titles that allows us to decipher misspellings, cramped letters, and unorthodox ligatures.

After the name and caliphally granted title of the sultan, the artisan paused, repeating the initial 'izz of the subsequent section before diving into a rote series of five rhyming titles (forgetting to add a *li* to the beginning of the first title in the list). Just one of the problems with this sequence is that the first of these titles had already been given in the previous section.

There is a sharp edge to a missing piece of the plate in the middle of this sequence, probably because of a fresh break that occurred when the plate was discovered. However, the beginning and the end of the title are present, allowing us to reconstruct *muns(if al-maz)lumin (min al-za)limin*, with the parentheses marking the missing letters. This missing section of the plate also causes the beginning of the words *taj* and *sala-tin* in the title *(t)aj al-muluk wa('l sala)tin* to be missing. The title is further confused by the non-canonical ligature of the end of the *jim* of *taj* with the *alif* of the following word.

To the left and slightly below this section, a piece of the plate is missing, and a network of cracks radiates from it. It is unclear what is missing from this part of the inscription. Because the lower part of the inscription is often filled in with decorative *waws* and other devices, it may be that no word or part of a word is missing here.

However, the real difficulty in deciphering this inscription comes in the subsequent section, the benediction, where the artisan continues his use of unorthodox ligatures and, seemingly looking to complete the inscription, spaces, stacks, and squeezes words and letters in unequal measure. This section starts with three words found in

many inscriptions, relating it less to sultanic inscriptions and more closely to inscriptions wishing health, happiness, and long life to the owner of the vessel. Such words are often found on metalwork, ceramics, and vessels and objects in other media in the medieval Islamic world. Here again, one might speculate that the artisan was trying to fill up space as he worked to make an ending to the inscription.

After listing three common words or phrases, the artisan seems to have returned to a sultanic title, although, as stated above, the reading proposed here is tentative because of the condition of the inscription and the lack of access to the vessel. The inscription then begins to repeat best wishes, using the word *da'ima* for a second time. The last few words of the benediction await better photographs and/or extended personal examination of the object.

### *The Inscription in Context*

Because this more complete reading does not add to the dating of the object, its main contribution, I think, is to an examination of the role of writing on medieval Islamic objects such as this glass plate. The ability of both Önder and Sourdel-Thomine to read the name of the Seljuk sultan Ghiyath al-Din Kaykhusraw II (r. 1237–1246) has allowed this plate to be dated to his reign. Consequently, it is one of the few securely dated pieces of medieval Islamic enameled glass, and the only one from a palace.

Why is this the case? Why are so many enameled and gilded products of medieval Islamic Syrian and Egyptian glass workshops, while full of the titulature of the time, devoid of the names of a particular monarch? One is led to the conclusion that, in the production of glass, as in other media, the presence of royal titles does not necessarily relate objects to a royal patron or setting. The concurrence of the names of an actual Seljuk sultan in the inscription on a glass vessel (this plate) and the palace where it was found (Kubadabad) shows that it was possible for a largely commercial production to be altered for a royal commission.

In an article on silk production in the medieval eastern Mediterranean, David Jacoby isolates a phenomenon that can be applied to contemporaneous glass production. He notes that the *tiraz* (an inscriptional band found on textiles), woven into prestigious fabrics and displayed on the upper sleeves of medieval Islamic garments like the logo on a present-day shirt, became standardized and even garbled as the use of *tiraz* spread to different sectors of Islamic society: "Turning to *tiraz* bands, we have noted that they originally decorated robes of honor granted by rulers, whose name they generally displayed. However, side by side with the traditional use, they became fashionable within larger and lower-ranking sectors of society, were also applied on private clothing, and appeared on various pieces other than robes. The inscriptions were shortened, became more conventional, omitted the names of rulers; even ordinary people ordered their own names to be displayed on them, or the script was replaced by ornamental elements."<sup>39</sup>

*Tiraz* bands are inscriptional and were displayed. Likewise, enameled vessels, many of which had to do with eating and drinking, were meant for display, and had prominent inscriptional bands on them. We know little or nothing about the social origins of enameled and gilded glass vessels in 12th-century Syria, but it would not be out of place to postulate that they were expensive and that their use was therefore restricted to elite circles: the palaces of the sultans and emirs of the Zangid and early Ayyubid states. Two pieces of glass help to chart the progression. The first is a bowl with gilded decoration that may bear the names and titles of 'Imad al-Din Zangi, who ruled in northern Syria and the Jazira between 1127 and 1146. The second vessel, with gilded and enameled decoration, bears the name and titles of Sanjar, atabeg of Mosul between 1180 and 1209.<sup>40</sup> Despite this admittedly small association between fine glass vessels and royal patrons, as the 13th century progressed, enameled and gilded glass vessels seem to have become a commodity.<sup>41</sup> With commodification came mass production, both for

local consumption and for export, leading to both a standardization of the Islamic titlature found on glass vessels (without regard for a particular monarch) and a willingness to repeat generic titlature to complete the band.

Gilded and enameled cups found during Danish excavations at Hama in central Syria in the 1930s exemplify the latter generalization, and they show striking epigraphic similarities to the glass plate from Kubadabad. One cup found at Hama has three inscriptional bands repeating the same standardized, anonymous lists of titles, while another has two such bands. This led the author of the section on inscriptions found during the Hama excavations to make the following statement: "Cette inscription ne se rapporte pas à un personnage historique, et la titlature très générale dont certaines parties sont répétées, a uniquement été utilisée pour son effet décoratif."<sup>42</sup>

The inscriptions on medieval glass vessels found at Hama have the same epigraphic style that is seen on the Kubadabad plate. As noted above, the inscriptions on these Syrian vessels, too, consist of writing derived from naskh, the basic scribal hand, but with elongated *hastae*.

Like the inscriptional bands on glass found at Hama, the Kubadabad plate repeats itself until the band is finished. As Sourdél-Thomine points out, it employs titles used by the Ayyubids and by other Anatolian Seljuk sultans, but never by Sultan Ghiyath al-Din Kaykhusraw II himself, thereby leaving the impression that this

39. David Jacoby, "Silk Economics and Cross-Cultural Artistic Interaction: Byzantium, the Muslim World, and the Christian West," *Dumbarton Oaks Papers*, v. 58, 2004, pp. 197–240, esp. p. 217.

40. Carboni [note 26], p. 205.

41. *Ibid.*, p. 203 (and, for commercial production, p. 204: "Enameled and gilded glass developed in the Syrian area in the course of the twelfth century"); Watson, "Another Gilt Glass Bottle" [note 26], p. 110, also discusses the relationship of gilded and enameled glass in medieval greater Syria.

42. "This inscription does not correspond to a historic personage, and the very generalized titlature, of which certain sections are repeated, has been used solely for decorative effect." E. Hammershaimb, "Les Inscriptions sur verres et poteries," in P. J. Riis and Vagn Poulsen, *Hama: Fouilles et recherches, 1931–1938*, v. 4, pt. 2, Copenhagen: Nationalmuseet, 1957, p. 285.

plate was a commission and made in Syria. Given the prevalence of similar inscriptions on beakers, it is not beyond the realm of possibility that this plate once had beakers to go with it as a set, although there is no archaeological evidence for this.<sup>43</sup> The Kubadabad glass plate stands between commercial production of enameled and gilded glass vessels that bore standard, anonymous royal titles, thereby granting cachet to the owner/user of the vessel, and vessels in other media, such as metalwork, that bore the correct sequence of titles of a particular ruler.

(S.R.)

#### DISCUSSION AND EVALUATION: WHERE WAS THE PLATE MANUFACTURED?

The inscription designates Ghiyath ad-Din Kaykhusraw II, son of the Seljuk Sultan ‘Ala’ al-Din Kayqubadh I, as the dedicatee of the Kubadabad plate. The name helps us to assign a date for the plate of 1237–1246, the years of the sultan’s reign. This nearly precise dating has caused scholars to declare the plate to be one of “the earliest properly enameled and dated examples of gilded and enameled glass.”<sup>44</sup>

Besides the owner and the date, the location where it was used is known: it was recovered inside a cistern at the corner of the larger palace at Kubadabad. The discovery in a cistern may offer a clue concerning the plate’s later history, indicating that the object had probably been used or displayed in the palace, and then, at an unknown date, it was probably broken and discarded. The date of the breakage and abandonment was likely during the Mongol invasion

of 1243, or slightly later, when the palace was pillaged and destroyed.

Until recently, the plate was considered to be a unique piece, but as mentioned above, during the 2012 excavation season, a rim fragment was found that bears a scroll pattern between two bands encircling the rim.<sup>45</sup> This scroll pattern (see Figures 5 and 7) is similar to the one painted on the exterior of the rim of the Kubadabad plate, which can be seen today because of the way in which the plate is shown in its display case (see Figure 3). Because this small fragment seems to have come from the rim of a conical beaker, its association with the Kubadabad plate makes Redford correct in his surmise, noted above, that the plate may have been accompanied by beakers to form a set.

The date and the dedicatee are known, and the only missing part of the story of the Kubadabad glass plate is the place of its manufacture. This is questionable because enameling, a new style for the period, was a highly specialized form of glass manufacture, and it required knowledge, a well-equipped workshop including one or more glass furnaces, and artisans experienced in the workshop practice of enameled and gilded glass.<sup>46</sup> The question, then, is this: Was the plate made in Kubadabad, on the palace grounds, or somewhere else?

During the 1965 and 1966 excavation seasons, a rich collection of glazed tiles was recovered in situ from the walls of the throne room in the larger palace. In addition, functional ceramics were found in both palaces, and small fragments of window glass were also plentiful. But the excavation reports give no indication of ceramic kilns, glass furnaces, furnace equipment,

43. P. J. Riis, “Les Verreries,” in *ibid.*, pp. 80–81, notes that, of all of the vessels with gilded and/or enameled inscriptions found in Danish excavations at Hama, all but one were beakers. The exception was a conical bowl or a funnel that also had a eulogistic inscription for a sultan.

44. Carboni [note 26]; *idem*, “Glass Production in the Islamic World: A Historical Overview,” in Carboni and Whitehouse [note 26], pp. 4–5; *idem* [note 22], pp. 322–369; Watson, “Another Gilt Glass Bottle” [note 26], pp. 114–115; Ward [note 25]; Julian Henderson, *Ancient Glass: An Interdisciplinary*

*Exploration*, Cambridge, U.K., and New York: Cambridge University Press, 2013, pp. 253–254.

45. Arik [note 17].

46. During his excavations at Raqqa, Julian Henderson discovered a glass workshop and published its plan, where three furnaces and one annealing kiln are shown; these are considered to be essential for glassworking. See Henderson [note 14], pp. 78–82, fig. 3.42, plan of the glass workshop, showing the location of the furnaces. However, it seems risky to have had this kind of workshop, with several furnaces, on the palace grounds.



raw materials, and unfinished or distorted pieces. However, as mentioned in the excavation reports of 1983 and 1984, a semicircular structure (D. > 4.5 m) was unearthed at the corner of the water distribution system in the main settlement area, closest to the southwestern corner of the smaller palace. Nearby were some other indicators of glass production, such as a pair of scissors, pincers, and some waste and other residual material.

Although Arik and Uysal do not insist on the existence of a glass furnace and a permanent glass workshop at the site, they do consider the possibility of a basic temporary workshop, situated near this circular structure to the west of the wall surrounding the palace complex, where only the crown glass needed for windows may have been produced.<sup>47</sup> The discovery of the plate on the grounds of a palace makes one wonder whether a small workshop, where glass was blown and decorated on the spot, might have been located there. Alternatively, such a workshop could have been devoted to enameling and gilding previously blown but undecorated objects that had been crafted elsewhere.<sup>48</sup>

Therefore, we can continue to question whether the plate was made in another glasshouse in Konya, Alanya, or somewhere else in Anatolia under Seljuk rule. Another possibility, discussed by Öney and Uysal, is the contribution of traveling artisans and craftsmen, who, in all periods, were responsible for the transmission of art forms and techniques from one region to another.

In this examination, priority will be given to Anatolia, first to the historical and social setting of the first half of the 13th century, and second to the possible technical accomplishments in

glass, to see if Anatolia had the potential for producing enameled glass by local artisans or by an artist who came from a glasshouse where such items were manufactured.

### *Glass Production in Medieval Anatolia*

In trying to determine the provenance of the Kubadabad plate, it is necessary to examine the glass discovered in the excavations of the two Seljuk palaces, Kubadabad and Alanya, both constructed by ‘Ala’ al-Din Kayqubadh I during the first half of the 13th century, and used first by him and later by his son Ghiyath al-Din Kaykhusraw II.

Otto-Dorn reports that, during the 1965 and 1966 excavations at Kubadabad, both the plate and some fragments of window glass in different colors were recovered.<sup>49</sup> In the excavations after 1980, utilitarian and window glasses were uncovered in abundance. The glass finds from the campaigns between 1984 and 2010 were studied by Uysal and published in 2013.<sup>50</sup> They include several small fragments with enameling.

In another article, Uysal assigned 15 fragments to conical beakers, of which only one has enameled decoration.<sup>51</sup> On most of these beakers, the decoration consists of abstract floral scrolls, and one example shows a bird standing on long and fine legs, but none of them shows decoration similar to that on the plate. In her evaluation of the Kubadabad finds with enameling, Uysal has accepted glass centers in Syria as a possible provenance, using reasoning similar to Öney’s. Her second proposal, following Öney, is in favor of an individual artist who came from one such workshop and was then employed in a workshop in Kubadabad.<sup>52</sup>

47. Uysal [note 15], pp. 480–482; *idem* [note 6].

48. In the production of gilded and enameled glass, the object was first blown or mold-blown, then decorated and fired several times to fix the gold and enamels. It is mentioned that, in Syria, there were workshops that produced ordinary blown glass and exported it to other workshops, where the decoration was applied. Lamm mentions (see note 62) Tyre as providing ordinary blown glass to centers working on enameled glass. This is only one possibility for the Kubadabad plate.

49. Otto-Dorn and Önder, “Bericht . . . 1965” [note 4].

50. The glass recovered at Kubadabad between 1981 and 2004 was reported in Uysal [note 15].

51. Uysal [note 16].

52. *Ibid.* (see cat. no. 39, 2009, H. 6.3 cm, Th. 0.1 cm, made of transparent colorless glass). The drawing (fig. 8, Ill. 37) shows a bird with part of the body, two legs, one toe, and the tail. The legs are drawn with a fine red line. The bird stands on a ground that is drawn as a band framed by fine lines in red. The inside of this band is filled with part of a scroll.

The second palace constructed by Sultan ‘Ala’ al-Din Kayqubadh I is in the citadel of Alanya, the city he conquered in 1221. Glass recovered in excavations conducted there between 1985 and 1991 was studied and published by Bakırer.<sup>53</sup> Most of the fragments of glass for everyday use and windowpanes were found in two spaces used as private chambers by the sultan and his son. They included fragments from bottles and lamps, as well as a small group of gilded and enameled fragments that can be assigned to conical beakers. Although their forms seem familiar, their decorative details and colors make it possible to assign them to three different beakers. The first group, consisting of two fragments, is from the rim of a beaker and has a band of decoration placed four centimeters below the rim. The sides of this band are bordered by two fine glass threads whose surfaces are covered with a string of slightly raised pearls. In the second group, again with two fragments, there is a similar narrow band encircling the rim. The surface of the band is covered with an abstract floral pattern, and its sides are outlined with glass threads.

The third group consists of four fragments of a conical beaker: one is from the rim, and the other three are from the body. The decoration of the fragments in this group is different from that of the first two groups.<sup>54</sup> Their surfaces are segmented with narrow bands crossing over and under, defining polygonal areas filled with small pearls that protrude from the surface. The bands are outlined in black, they are filled with blue

and red and gold, and the pearls are white on a light honey-colored background. The first and third groups are reminiscent of the Raqqa group of glasses decorated with protruding pearls. None of the glasses in the Alanya group with enameled decoration bears figural representations or calligraphy.<sup>55</sup>

This examination has revealed a limited number of enameled glasses from medieval Anatolian sites. The scholars who studied these fragments attribute them to Syria rather than a specific area or local workshop in Anatolia. This makes it necessary to investigate the state of enameled glass production in other well-known Near Eastern sites during the first half of the 13th century, so that a possible production center in that area can be considered.

### *Enameled Glass Production in the Near East*

How and where was the art of enameling glass initiated? Undecorated glassware, in a variety of vessel types and produced with different techniques, was used in the eastern Mediterranean from early times onward, and vessels decorated with enamel are known from as early as the mid-second millennium B.C.<sup>56</sup> However, beginning with the Umayyad dynasty and continuing through the 11th century, none of the rulers in the areas dominated by the Abbasids, Fatimids, and Seljuks in Iran and Anatolia regarded the medium as important enough to have their names prominently carved or molded on

53. The glass was documented by Drs. Bilici, Ersoy, and Bozer, then members of the excavation team. I studied the glass much later, between 2002 and 2005 (three seasons). The excavation reports of the Alanya palace have not been published, but I have presented the glass in two seminars whose proceedings were published. See Ömür Bakırer, “Glass from the Seljuk Palace at Alanya,” in *Late Antique/Early Byzantine Glass in the Eastern Mediterranean*, ed. Ergün Laflı, İzmir: Hürriyet Matbaası, 2009, pp. 199–212; and *idem*, “The Palace of ‘Ala’ ad-Din Kay-Qubad at Alanya and Its Glass Finds,” in *Der Doppeladler: Byzanz und die Seldschuken in Anatolien vom späten 11. bis zum 13. Jahrhundert*, ed. Neslihan Asutay-Effenberger and Falko Daim, *Byzanz zwischen Orient und Occident*, v. 1, Mainz: Verlag des Römisch-Germanischen Zentralmuseums, 2014, pp. 129–138.

54. When found, the surfaces of all of these pieces were covered with a thick layer of iridescence, so the decoration could not be identified. The fragments in the third group were cleaned, and when the layer of iridescence was removed, the decoration, with the bands and the pearls, became visible.

55. Two other medieval sites, Beçin and Yumuktepe, have yielded enameled glass, but it is dated to the 14th century. See Sevinç Gök, “2000 Yılı Beçin Kazısı’nda Bulunan Cam Kandil Hakkında,” *Ege Üniversitesi Sanat Tarihi Dergisi*, v. 13, no. 1, 2004, pp. 33–41.

56. D. B. Harden, “Syrian Glass from the Earliest Times to the 8th Century A.D.,” *Bulletin des Journées Internationales du Verre*, no. 3, 1964, pp. 19–24, esp. p. 21.

a glass vessel.<sup>57</sup> On the other hand, enameled and gilded glass flourished, especially after the late 12th century, attaining a status that can be termed “royal” and being in great demand among both sultans and emirs.<sup>58</sup>

The chronology of enameled and gilded glass starts with its development in the 12th century in the northern part of Syria, where it flourished during the final decades of Ayyubid rule and continued into early Mamluk domination in the 13th century. Scholars who examined the background of this production have stated that the social setting and artistic milieu of 12th-century Syria are not well known. However, the production of this type of glass was expensive, and so it was not initially manufactured in large numbers, but instead was highly prized, with its use restricted to rulers and elite circles, such as the palaces of the sultans and emirs.<sup>59</sup>

Carboni, Whitehouse, and Henderson have claimed that gilded and enameled lamps, bottles, beakers, and basins in a typical Islamic context were highly valued. In northern Syria, products were commissioned by Ayyubid rulers, Jaziran atabegs, and Anatolian Seljuk sultans for special occasions; traded over considerable distances; and presented as cherished gifts.<sup>60</sup> With the arrival of the 13th century, however, enameled and gilded glass vessels seem to have become an easily acquired commodity. People could afford them for everyday use, and this must have encouraged workshops to increase production, especially of beakers and other vessels with standardized inscriptions conveying blessings and good wishes upon their anonymous future owners.<sup>61</sup>

If Syria is accepted as the area where this art form flourished, the question is where it developed. Although there is general agreement on Syria and Egypt for the possible beginnings of enameled glass production, attempting to determine a specific production center or centers has prompted diverse proposals, depending especially on style. The Swedish art historian Carl J. Lamm was the first to catalog the existing examples of all types of Islamic glass. Taking into account stylistic characteristics, art-historical data, and comparative studies, he proposed a provenance-based chronology.<sup>62</sup>

Lamm’s chronology of Islamic glass, particularly enameled glass, has been used for many years, and the dating of finds from Islamic excavations has depended mostly on his studies. However, recent excavations have revealed new examples of enameled glass, and the information concerning these finds has caused researchers to question and even discredit Lamm’s timeline. Scanlon maintained that “there was no reference to gilded and enameled glass being produced in any Syrian town apart from Damascus.”<sup>63</sup> He therefore encouraged those working on glass not to use this classification until more examples were brought to light with scientific excavations. On the same issue, Ward expressed her doubts about dating and insisted on a reassessment of the chronology.<sup>64</sup>

Relying on some recently excavated examples and a reassessment of other glasses in museum collections, Carboni, Henderson, and Watson proposed Raqqa, in northern Syria, as a center for the production of Islamic enameled glass.<sup>65</sup> Carboni claimed that enameled and gilded glass

57. Carboni [note 44], pp. 3–8, esp. p. 4.

58. *Ibid.*

59. Carboni [note 26], p. 203 (for commercial production); Ward [note 25]; Henderson [note 44].

60. Carboni [note 26], p. 203 (and, for commercial production, p. 204); Ward [note 25]; Whitehouse [note 26], pp. 56–58 and 112; Henderson [note 14], *idem* [note 44].

61. Carboni [note 58], pp. 4–5.

62. Carl Johan Lamm, *Mittelalterliche Gläser und Steinschnittarbeiten aus dem Nahen Osten*, 2 vv. Berlin: D. Reimer, 1929, v. 1, Raqqa Group (1170–1270), pp. 265–277; Fustat

Group (1270–1340), pp. 277–285; Aleppo Group (13th century), pp. 297–348; and Damascus Group (1250–1310), pp. 348–392; and v. 2, pls. 89–205; Henderson [note 44], p. 267.

63. George T. Scanlon, “Lamm’s Classification and Archaeology,” in *Gilded and Enamelled Glass* [note 26], pp. 27–29; Ward [note 25].

64. Ward [note 25].

65. Carboni [note 26] points to Raqqa for the beginning of enameled glass production. See also Watson, “Another Gilt Glass Bottle” [note 26].

developed in Syria during the 12th century, and he considered Raqqa to be a good candidate with its long tradition as a glassmaking center.<sup>66</sup> Watson also favored Raqqa, for the same reason. Henderson, who has conducted excavations and technical research at Raqqa, provided the first clear picture of the organization and location of Islamic industries in an urban landscape. His excavations yielded the remains of four furnaces and an annealing chamber used in the production of glass. Some production models were also discovered in Raqqa.<sup>67</sup> These discoveries support Henderson's proposal of Raqqa as the original source of gilded and enameled glass.

## CONCLUSION

After examining the various possibilities of provenance for the manufacture of the Kubadabad plate, it is necessary to ask whether Raqqa might supply the answer. The plate, inscribed with the name of its owner, is definitely datable, and it is therefore one of the few examples of glass decorated with gilding and enameling. This type of glass is considered to be of high quality, but according to Carboni, "Although there are notable exceptions, high-quality Islamic glass has not generally enjoyed royal and courtly patronage throughout its history."<sup>68</sup> This tendency makes the plate a unique case because it was destined for a sultan, a member of the Seljuk dynasty, and decorated with an inscription bearing his name. If the plate celebrated a special occasion in the life of the sultan, it may have been accepted as an excellent work and used or displayed during his reign. Later, when the palace fell into ruin, the plate may have been discarded by the intruders or forgotten until it was unearthed in 1966.

Another attribute that makes the plate unique among enameled examples is its form. It is claimed that the manufacture of decorated plates was limited throughout the history of medieval Islamic glassmaking, which favored such shapes as mosque lamps, bottles, and beakers.<sup>69</sup> The only other enameled plate that has been discovered, which is mentioned by Carboni, Pilosi, and

Wypyski and dated to the 13th century, is smaller (D. 21.5 cm); it is housed in The Metropolitan Museum of Art in New York City (MMA 54.1). The few 14th-century examples of glass plates are also smaller.<sup>70</sup> In their article, the authors mention the Kubadabad plate for comparison and assign it to Syria, where it was "manufactured . . . for export during the Ayyubid Period (ca. 1169–1260)."<sup>71</sup>

All of these features—owner, date, royal patronage, shape, and technique of enameling—are among the outstanding attributes of the Kubadabad plate. As was noted above, the technique employed in its manufacture is acknowledged as the final phase in the evolution of the enameling technique. However, because chemical analysis was not possible, nothing more can be said about the materials used and the colored enamels.<sup>72</sup>

None of the proposed Anatolian sites, including the Kubadabad and Alanya palaces, presents

66. Carboni [note 26]; Watson, "Pottery and Glass" [note 26].

67. Henderson [note 44], pp. 253–258. Industrial activity at al-Raqqa, which began in the eighth century, involved the large-scale manufacture of pottery and glass, which must have created an environment in which innovations occurred. An interesting tension is likely to have existed between very conservative glass artisans and those who encouraged or enforced changes in technology. These changes were in the raw materials used, techniques, and firing methods, which would have forced the artisans to make some serious adjustments in their working practices, including the quantity and type of fuel used and potential adjustments to new melting temperatures and glassworking properties (annealing temperature and working range). See also *idem* [note 14].

68. Carboni [note 44], p. 4.

69. Carboni, Pilosi, and Wypyski [note 14].

70. *Ibid.*, pp. 79–81, fig. 1.

71. *Ibid.*, p. 83.

72. *Ibid.*, pp. 86–88, esp. p. 88: Technical examination of a few examples of gilded and enamelled glass, and especially the Metropolitan plate, has shown the use of "a soda-lime-silica glass with relatively high magnesium and potassium contents. This compositional type has been associated with the use of an alkali consisting of plant ash. . . ." Henderson ([note 44], pp. 257–263) provides a detailed discussion of the glass technology employed in Syria and the use of plant ash as a flux. The same or similar material characteristics can be considered for the Kubadabad plate because studies of some fragments of window glass recovered at the Alanya palace have revealed the use of a soda-lime-silica composition. See Uğur Bülent Aksoy, "Archaeometrical Investigation of Some Medieval Glass Samples from Alanya Region," M.S. thesis, Middle East Technical University, Ankara, 2009.



enough strong evidence to make it a candidate for an Anatolian provenance. All of these sites have produced a few enameled fragments from only two or three vessels, and they do not point to a regular workshop practice. Furthermore, these few pieces with gilding and enameling display different styles of decoration: overlapping bands, projecting pearls, floral scrolls, and, as in the Kubadabad plate, calligraphy. These variations can be taken as evidence of varied workshop practices. On this issue, we can refer to an assessment by Weinberg, who maintained that if several items of the same type are found, they may point to local production, but if several types are presented with only one or two examples each, they may suggest outside centers from which these objects were transmitted by means of trade or gifts.<sup>73</sup>

Aside from the possible remains of a furnace or kiln in Kubadabad, no glass furnace, evidence of raw materials, noteworthy example of a discarded piece, or anything else related to workshop activity has been recovered to date. This suggests that the enameled fragments found in Kubadabad, as well as the plate itself, were not produced locally, in a workshop close to the palace. Nor were they made in Beyşehir, the closest settlement to Kubadabad, or in Konya, where no medieval glass finds or furnaces have been mentioned. Alanya yielded a very few discarded pieces of ordinary glass, which might point to the manufacture of ordinary window glass, but they cannot be taken as proof of the production of enameled glass.

To date, the Kubadabad plate has been studied by two groups of researchers. The first group consists of the excavators who first saw it in the 1960s, described its physical properties, and assessed its place of production, pointing to Syria as a possible provenance. Öney, a member of that group, and Uysal, who studied all of the Kubadabad finds, suggested a Syrian workshop or a Syrian artist working in Anatolia. The second group of scholars was especially interested

in the plate after the late 1990s, in relation to a growing interest in Islamic gilded and enameled glass. It has been cited in discussions of chronology and provenance, and included in comparative discourses, because it is a securely dated example. These scholars regard the plate as a reflection of the third stage in the development of enameled glass and attribute it to Syria as “a rare example of gilded and enamelled glass manufactured . . . for export during the Ayyubid Period.”<sup>74</sup> It is mentioned that, after its discovery, “enameled and gilded glass became prized almost immediately: records indicate that products from Syria were commissioned by . . . the Seljuk sultans of Anatolia.”<sup>75</sup>

Scholars who have worked on glass from other medieval Anatolian sites have taken a similar approach. At Harran, fragments of translucent glass in several colors were attributed to the glass factories of Aleppo, while the single enameled piece, together with the pottery excavated at the southern gateway, was credited to the “Raqqā group” of the Ayyubid period, based on its surface decoration. For glass from Samsat, Öney suggests Damascus and Raqqā, and for the enameled glass from the two Seljuk palaces, all scholars have considered Syria and possibly Raqqā.

My assumptions are predicated on the vague information on the historical, political, and social events of the period, as well as on the fact that the Ayyubids excelled in the manufacture of gilded and enameled glass from 1171 to 1250. Their products, with a typical Islamic context, were given as gifts or commissioned by Ayyubid rulers, Jaziran atabegs, and Anatolian Seljuk

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73. Gladys Davidson Weinberg, ed., *Excavations at Jalame, Site of a Glass Factory in Late Roman Palestine*, Columbia: University of Missouri Press, 1988, p. 38.

74. Carboni, Pilosi, and Wypyski [note 14], p. 83.

75. Carboni [note 44].

sultans. In addition, Raqqa had established workshops for glass. These considerations, as well as the dates when its production flourished (especially between 1170 and 1270) and its location (it was the glassmaking center closest to Anatolia), prompt me to consider Raqqa as a possible candidate for the production of the plate, at least until more examples come to light. The plate was specially designed for the Anatolian sultan, with patterns that were familiar to him, such as the central composition with floral elements, scrolls, and single scrolls repeated inside a band. Such patterns were much favored in Seljuk art and architectural decoration, and they were employed on stone, wood, and pottery.<sup>76</sup>  
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76. For examples on stone, see Gerd Schneider, *Pflanzliche Bauornamente der Seldschuken in Kleinasien*, Weisbaden: L. Reichert, 1989. Schneider has published drawings of examples from the portals and walls of caravansaries, in which compositions with scrolls, either central or repeating in a row, are carved on stone. See especially plates 23 and 25–27. On the wooden

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mimbar of the Great Mosque at Divriği (1228–1229), both single twining scrolls and scrolls in more complex arrangements are used on the side panels. See Yılmaz Önge and Sadi Bayram, eds., *Divriği Ulu Camii ve Darüüşşifası*, Ankara: Vakıflar Genel Müdürlüğü Yayınları, 1978, colorplates 17, 18, 22, and 23.